

CLIMATOLOGICAL DATA FOR FEBRUARY, 1913.

DISTRICT NO. 8, TEXAS AND RIO GRANDE VALLEY.

B. BUNNEMEYER, District Editor.

GENERAL SUMMARY.

February was the third consecutive month with mean temperature well below normal, but there was no severely cold weather in the eastern portion of the district, and the highest and lowest temperatures were well within the record for this month. There was no freezing weather along the Texas coast, and conditions were favorable for early truck growing, except in localities where the tilling of the soil was prevented by too much moisture. The sunshine, however, was decidedly deficient, as there were many damp or cloudy days without rain, and in eastern Texas the soil was generally too wet for working. The precipitation for the district as a whole averaged about normal and was quite evenly distributed. It exceeded the normal in the northwestern and southeastern portions of the district, and was deficient in the middle portions, especially in west Texas. Frequent but light precipitation was the rule, and at no station did the greatest amount in 24 consecutive hours reach the excessive rate of 2.50 inches. Severe local storms occurred during the last decade. In New Mexico unusually heavy snowstorms occurred between the 23d and 28th. In Texas violent windstorms caused considerable damage to property in Hill and Ellis Counties on the 21st, while on the 26th or 27th severe hail and wind storms occurred in many localities in the southeastern half of the State, injuring or wrecking buildings and doing other damage. At several points the hailstones broke through shingle roofs. In the oil fields near Humble 200 derricks were blown down and wrecked. The total damage from these local storms is estimated at over \$200,000.

The greatest and least monthly amounts of precipitation were, respectively, in Colorado 5.92 inches at Cumbres and 0.06 inch at Garnett; in New Mexico, 3.83 inches at Anchor Mine and 0.12 inch at Los Lunas; and in Texas, 6.60 inches at Rockland and 0.02 inch at Barstow. The greatest monthly snowfall in Colorado was 86 inches at Cumbres; in New Mexico, 70 inches at Anchor Mine; and in Texas, 4 inches at Granl Falls.

The average number of days with 0.01 inch or more of precipitation was 6 in Colorado and Texas, and 5 in New Mexico.

TEMPERATURE.

The monthly mean temperature was 0.3° below the normal in Colorado, 1.8° below in New Mexico, and 2.3° below in Texas. The weather was persistently cold from the 2d to 8th, and the lowest temperatures generally occurred on the 2d, 3d, or 8th. The highest temperatures were recorded between the 16th and 19th, and between the 25th and 27th. Changes from day to day were remarkably moderate for the season, and the average daily range was less than normal, varying from 9° on the Texas coast to about 34° in the extreme northwestern portion of the district.

The highest and lowest temperatures reported were, respectively, in Colorado, 53° at Saguache on the 18th and -28° at Hermit on the 21st; in New Mexico, 77° at Artesia and at Carlsbad on the 17th, and -12° at Bluewater on the 3d; and in Texas, 95° at Harlingen on the 26th and 11° at Plainview on the 3d, and at Marathon on the 8th. The local monthly means ranged from 12.4° to 25.6° in Colorado, from 21.4° to 46° in New Mexico, and from 37° to 64.4° in Texas.

PRECIPITATION.

The average precipitation for the Rio Grande watershed was 1.14 inches, which is 0.35 inch greater than the normal. A slight deficiency occurred at the lower stations in Colorado, over a short stretch in New Mexico between Estancia and Rosedale, and in scattered localities in Texas.

The Rio Pecos watershed also received more than the normal amount of moisture, the average being 0.79 inch, which is an excess of 0.12 inch. The monthly amounts were generally above the normal in the New Mexico portion and below in the Texas portion of the watershed.

Of the Texas watersheds those of the Nueces, Brazos, and coastal plains received slightly less than the normal amounts of precipitation, the deficiencies ranging from 0.02 inch for the Nueces to 0.10 inch for the Brazos. The remaining Texas watersheds received ample moisture, with excesses ranging from 0.05 inch for the Trinity watershed to 1.25 inches for that of the Neches. The following are the monthly amounts in inches and hundredths for the various Texas watersheds: Nueces, 1.58; San Antonio, 2.12; Guadalupe, 2.99; Lavaca, 3.53; Colorado, 1.54; Brazos, 1.90; Trinity, 2.45; Neches, 4.77; Sabine, 3.64; and coastal plains, 2.41.

RIVER CONDITIONS.

The rivers of the district were at low-water mark during the greater part of the month, as the precipitation fell slowly and was well distributed, favoring absorption by the soil. Slight rises were general at the beginning of the second decade, and again at the close of the month in the Sabine and lower Trinity.

SNOWFALL IN THE MOUNTAINS.

The snowfall was unusually heavy at the mountain stations in Colorado and New Mexico, and as the month was uniformly cold it nearly all remained on the ground. The stored depth has increased over both the Rio Grande and Rio Pecos watersheds and was about normal in New Mexico at the close of the month. In Colorado it was below the normal, but the stored depth averaged 22 inches at an elevation of 9,400 feet, which is 2 inches more than a year ago. The earlier snows are hard packed, but the settling of the recent falls was delayed by the cold weather.

TABLE 1.—Climatological data for February, 1913. District No. 8, Texas and Rio Grande Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.			Prevailing wind direction.	Observers.						
				Mean.			Departure from the normal.			Highest.			Lowest.			Greatest daily range.			Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unrunnelled.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of perfectly cloudy days.	Number of cloudy days.
				High.	Date.	Low.	High.	Date.	Low.	High.	Date.	Low.	High.	Date.	Low.	High.	Date.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unrunnelled.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of perfectly cloudy days.	Number of cloudy days.	
<i>Colorado.</i>																										
Blanca.	Costilla.	7,865	4	23.1 ^b	—	49 ^b	17	—	9 ^b	3	41 ^b	0.24	—	0.24	4.0	1	14 ^b	6 ^b	w.	Lewis F. Botens.						
Cumbres.	Conejos.	10,015	6	23.1 ^b	—	49 ^b	17 ^b	—	8	3 ^b	45	0.06	—	0.17	1.05	14	9	4	15	sw.	Mrs. Ida M. Lively.					
Garnett.	Costilla.	7,576	20	21.6	-2.0	49	17 ^b	—	8	3 ^b	45	0.33	—	0.36	9.5	5	16	4	8	sw.	Chas. Speiser.					
Hermit.	Hinsdale.	9,843	6	12.4	—	51	16	—	28	21	57	—	—	—	0.53	27.5	5	13	5	w.	Marlon Mason.					
Laveta Pass.	Costilla.	9,000	3	—	—	—	—	—	—	—	—	1.47	—	—	0.07	2.0	2	16	7	sw.	Clara M. Wright.					
Manassa.	Conejos.	7,700	7	24.0	—	52	17	—	8	3 ^b	48	0.14	—	0.75	43.9	12	13	4	11	w.	J. B. Chapman.					
Platoro.	do.	7,675	6	—	—	—	—	—	—	—	—	3.27	—	—	0.20	2.0	1	8	8	w.	Walter R. Hook.					
Saguache.	Saguache.	7,740	21	25.6	+0.02	53	18	—	2	21	41	0.20	—	0.11	0.20	2.0	1	8	8	12	Eugene Williams.					
San Luis.	Costilla.	7,794	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	P. B. Albright.						
Wagon Wheel Gap Experiment Station.	Mineral.	9,235	2	17.8	+0.08	45	16	—	10	21	35	0.76	—	0.08	0.34	9.9	11	17	6	5	nw.	U. S. Weather Bureau.				
<i>New Mexico.</i>																										
Agricultural College.	Dona Ana.	3,863	52	42.8	-3.8	68	18	17	22	43	0.80	+ 0.33	0.37	0	5	10	6	12	sw.	N. Mex. Agricultural College.						
Alamogordo (near).	Otero.	4,338	16	43.8	-1.8	63	17 ^b	22	4	39	1.77	+ 1.05	0.92	3.5	6	11	7	10	sw.	Edward Le Breton.						
Alamogordo.	do.	4,320	4	—	—	60	18	21	3	30	1.62	—	0.84	—	4	—	—	—	—	H. H. Brooks.						
Alamos Ranch.	Sandoval.	7,800	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Pitt Ross, C. E.						
Albuquerque.	Bernalillo.	5,000	37	—	—	—	—	—	—	—	—	0.41	+ 0.13	0.17	2.9	5	16	8	4	Agent E. P. & S. W. R. R.						
Ancho.	Lincoln.	6,112	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Chas. H. Brigham.						
Anchor Mine.	Taos.	10,600	2	—	—	—	—	—	—	—	—	3.53	—	0.54	70.0	11	13	6	9	Will Benson, C. E.						
Artesia.	Eddy.	3,350	5	43.4	—	77	17	18	3	49	0.42	—	0.44	38.4	9	10	10	8	Junius D. Maupin.							
Aspin Grove Ranch.	Rio Arriba.	9,000	4	—	—	—	—	—	—	—	—	2.16	—	0.75	29.2	8	14	4	10	John W. Bateman.						
Batemann's Ranch.	do.	8,900	4	—	—	—	—	—	—	—	—	0.91	—	0.55	—	4	—	—	—	J. C. Rishaberger.						
Berino.	Dona Ana.	3,788	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bluewater Development Co.						
Bluewater.	Valencia.	6,732	11	28.1	-3.0	60	17	—	12	3	51	0.66	+ 0.02	0.33	11.0	3	11	6	11	Agent E. P. & S. W. R. R.						
Boaz.	Chaves.	4,154	4	40.4	—	72	18	1	3	49	0.56	—	0.24	6.0	3	19	6	3	William Horner.							
Capitan.	Lincoln.	6,348	4	—	—	—	—	—	—	—	—	1.25	—	0.30	14.5	6	9	11	w.	Agent E. P. & S. W. R. R.						
Carlsbad.	Lincoln.	5,429	18	46.0	-1.0	77	17	20	3	50	0.28	—	0.12	0.15	1.0	4	13	8	se.	U. S. Reclamation Service.						
Carmizoso (near).	Santa Fe.	5,700	1	31.8	—	60	16 ^b	2	3	42	0.77	—	0.24	14.0	7	10	11	7	Irving C. Sweet.							
Chama.	Rio Arriba.	7,851	15	21.4	-4.5	46	16 ^b	—	5	24	38	0.58	+ 0.67	0.99	61.0	12	12	11	5	Frank C. Johnson.						
Cloudcroft.	Otero.	8,650	11	28.4	-2.1	44	3 ^b	7	13	26	2.61	+ 0.70	0.52	38.0	12	13	4	11	Agent E. P. & S. W. R. R.							
Corona.	Lincoln.	6,666	4	35.6	—	58	17 ^b	6	8	42	0.46	—	0.32	7.0	4	10	11	7	Do.							
Coyote.	do.	5,800	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Juan Vilij.						
Cundiyo.	Santa Fe.	6,889	4	—	—	—	—	—	—	—	—	0.43	—	0.20	6.0	3	15	9	4	w.	Erb & Westerman.					
Demonstration Farm.	San Miguel.	6,800	4	—	—	—	—	—	—	—	—	0.63	—	0.23	8.0	3	15	5	8	Agent E. P. & S. W. R. R.						
Duran.	Torrance.	6,272	4	35.6	—	60	17	10	7 ^b	38	0.62	—	0.28	6.0	5	15	5	8	Do.							
Escondido.	Otero.	4,014	4	—	—	—	—	—	—	—	—	0.85	—	0.37	1.0	4	17	5	6	se.	Mrs. Ella F. McBride.					
Espanola.	Rio Arriba.	5,590	15	31.1	-3.8	58	18	—	1	3	38	0.38	+ 0.02	0.15	5.8	4	15	7	6	w.	Geo. H. Van Stone.					
Estancia.	Torrance.	6,140	9	33.0	—	50	17	5	23	42	0.61	- 0.10	0.24	8.7	6	12	6	10	sw.	U. S. Sanitarium.						
Fort Stanton.	Lincoln.	6,231	36	36.0	-2.4	65	17	11	27	43	0.34	- 0.35	0.20	3.0	3	15	9	4	sw.	Peter Yockey.						
Fort Sumner.	Guadalupe.	3,980	5	37.8	—	73	17	1	7	54	0.34	—	0.18	4.0	5	10	14	4	sw.	Agent E. P. & S. W. R. R.						
Gallinas.	Lincoln.	6,635	4	—	—	—	—	—	—	—	—	0.37	—	0.28	5.0	3	13	0	15	w.	U. S. Forest Service.					
Gallinas Planting Sta.	San Miguel.	7,500	6	28.6	—	65	17	—	3	23	46	1.37	—	0.46	25.4	7	13	9	6	sw.	Chas. M. Crossman.					
Glorietta Ranch.	Socorro.	5,700	3	—	—	—	—	—	—	—	—	0.40	—	0.25	3.1	4	7	10	11	w.	R. B. Schoonmaker.					
Harvey's Upper Ranch.	do.	9,400	4	25.2	—	50	17	4	21	32	2.27	—	0.67	38.4	9	16	7	5	w.	E. H. Byers.						
Hobbs.	Chaves.	3,904	4	40.4	—	74	18	5	8	45	0.47	—	0.42	4.5	2	20	6	2	sw.	U. S. Reclamation Service.						
Hondo Reservoir.	Sandoval.	6,100	3	31.2	—	54	17	3	3	39	1.60	—	0.60	26.0	6	13	5	10	sw.	Mrs. L. L. Shields.						
Jemez Springs.	Eddy.	4,300	3	40.4	—	71	18 ^b	15	7 ^b	46	0.26	—	0.20	1.5	3	11	11	6	sw.	J. W. Mosley.						
Knowles (near).	Valencia.	5,840	5	33.9	—	64	17	3	3	42	1.09	+ 0.31	0.28	15.5	7	—	—	—	—	Gus Weiss.						
Laguna.	Chaves.	5,000	8	—	—	62	15	—	—	—	—	1.58	—	0.90	6.0	6	12	9	7	sw.	P. A. Turnbull.					
Lagunita.	Sierra.	5,412	8	—	—	53	17	15	18	51	0.21	—	0.21	3.0	2	24	2	2	se.	William Kell.						
Lake Valley.	Eddy.	3,170	1	43.0	—	75	17	15	18	51	1.05	+ 0.65	0.40	4.5	5	12	4	12	e.	Mrs. J. K. Boyd.						
Lakewood (near).	do.	4,156	14	—	—	54	17	5	21	32	2.15	—	0.70	13.2	9	13	3	12	se.	Agent So. Pac. R. R.						
Las Vegas.	San Miguel.	6,385	26	34.1	0	67	1	0	3	55	0.83	- 0.13	0.40	12.1	5	16	6	6	sw.	N. Mex. Normal University.						
Liston.	Chaves.	5,000	3	—	—	—	—	—	—	—	—	1.65	—	1.05	7.0	3	7	14	7	sw.	H. G. Liston.					
Los Lunas (near).	Valencia.	4,900	24	35.6	-2.3	68	19 ^b	13	3	45	0.12	- 0.35	0.08	1.5	3	8	13	7	sw.	Richard Pohl.						
Magdalena.	Socorro.	6,557	9	33.6	—	64	17	2	21	44	0.42	- 0.29	0.14	6.0	4	11	12	5	w.	William Pender.						
Mescalero.	Otero.	6,627	14	34.2	—	54	17	5	21	32	2.15	—	0.70	13.2	9	13	3	12	sw.	Rev. R. H. Harper.						
Mineral Hill.	San Miguel.	7,050	8	—	—	—	—	—	—	—	—	1.79	—	0.60	20.0	7	3									

TABLE 1.—Climatological data for February, 1913. District No. 8—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.			
New Mexico—Contd.																					
Tres Piedras.....	Taos.....	8,076	10	22.4	.....	48	16	6	3	43	0.57	0.19	13.0	9	12	14	2	sw.	U. S. Forest Service.	
Truchas.....	Rio Arriba.....	7,935	4	24.4	.....	35	4†	1	8†	37	.....	0.26	9.4	6	8	6	14	w.	Miss Myrtle Rendon.	
Tularosa.....	Otero.....	4,438	3	.....	.....	.....	.....	.....	.....	.....	.....	0.50	13.8	4	17	5	6	sw.	I. L. Fairless.	
Vaughn.....	Guadalupe.....	5,952	4	.....	.....	54	26	0	1†	43	1.00	0.15	3.2	3	15	3	10	s.	Agent E. P. & S. W. R. R.	
Virgilia.....	Taos.....	7,500	3	26.8	.....	64	8	7	23	47	1.00	0.15	3.9	3	13	0	15	n.	Dr. I. N. Woodman.	
Willard.....	Torrance.....	6,086	1	35.3	.....	50	16†	3	12	37	2.47	+ 0.80	0.80	44.5	10	7	16	5	sw.	Dr. Volney S. Cheyney.
Winsors.....	San Miguel.....	8,200	17	28.5	+ 0.4	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	11	5	w.	James F. Matty.	
Texas.																					
Abilene.....	Taylor.....	1,738	28	42.0	— 2.8	75	19	19	2	40	0.56	— 0.52	0.26	1.6	7	9	7	n.	U. S. Weather Bureau.		
Albany.....	Shackelford.....	1,429	19	38.4	— 7.7	78	26	13	2	56	0.40	— 0.64	0.30	1.0	2	11	3	n.	N. L. Bartholomew.		
Alice.....	Jim Wells.....	209	2	57.8	.....	86	28	33	8†	35	1.85	0.67	0	0	7	13	0	n.	R. M. Boerum.	
Alpine.....	Brewster.....	4,482	3	.....	.....	.....	.....	.....	.....	.....	.....	0.41	0	1	17	5	w.	H. B. Cowles.		
Alvin.....	Brazoria.....	49	15	32.6	.....	77	19	28	14	30	3.01	— 0.21	1.30	0	4	11	5	n.	Alvin Japanese Nursery.	
Anahuac.....	Chambers.....	23	4	.....	.....	.....	.....	.....	.....	.....	.....	0.48	0	0	9	9	n.	Lone Star Canal.		
Antelope.....	Jack.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.66	1.5	3	9	11	s.	Paul Rudolph.		
Aspermont.....	Stonewall.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.60	0	1	10	4	n.	Bryant Link Co.		
Austin.....	Travis.....	593	57	49.0	— 4.1	79	26	28	7	38	3.25	+ 0.35	1.14	0	10	4	14	n.	A. Deussen.		
Ballinger.....	Runnels.....	1,637	17	45.6	— 0.8	79	19†	22	2†	44	1.02	+ 0.33	0.52	T.	2	9	6	n.	E. M. Ebanks.		
Barstow.....	Ward.....	2,573	6	46.2	.....	75	19†	21	8	50	0.02	0.02	0.1	1	19	5	4	e.	F. P. Ingerson.	
Bay City.....	Matagorda.....	53	3	56.6	.....	85	27	34	4†	43	3.23	0.05	0	9	12	0	16	n.	E. C. T. reau.	
Beaumont.....	Jefferson.....	29	12	54.8	+ 2.2	79	28	31	8	32	4.72	+ 1.00	1.36	0	8	12	0	16	n.	John Bender.	
Beeville.....	Bee.....	235	17	54.7	— 1.5	87	26	32	14	36	1.55	— 0.41	0.48	0	9	6	13	n.	L. E. Dickey.		
Big Springs.....	Howard.....	2,396	15	44.2	— 3.5	77	18†	17	2	43	0.53	+ 0.08	0.26	3.1	5	13	5	10	s.	B. Reagan.	
Blanco.....	Blanco.....	1,350	17	47.0	— 0.8	75	25	25	4†	30	2.53	+ 1.14	0.87	0	12	4	17	n.	R. C. Crist.		
Boerne.....	Kendall.....	1,412	21	46.7	— 2.8	83	26	20	3	43	1.80	+ 0.16	0.40	0	13	1	14	n.	F. W. Schweppe.		
Booth.....	Fort Bend.....	81	12	3.27	+ 0.22	0.85	0	8	12	0	16	n.	T. R. Booth.
Bowie.....	Montague.....	1,113	18	41.2	— 4.0	77	18†	20	1†	40	1.35	+ 0.12	0.84	1.2	5	10	1	17	n.	Craig Anderson.	
Brady.....	McCullough.....	1,500	19	50.8	.....	85	19	21	13	48	0.10	— 0.88	0.10	1.0	1	12	3	13	n.	Prof. J. O. Wallace.
Brazoria.....	Brazoria.....	25	24	56.2	+ 0.5	78	19	32	14	36	3.31	— 0.10	1.71	0	11	5	11	e.	Mrs. M. A. Stevens.		
Brazos.....	Palo Pinto.....	801	4	.....	.....	.....	.....	.....	.....	.....	0.91	0.35	0.27	1.0	4	8	7	n.	Robt. E. Boyett.	
Brenham.....	Washington.....	350	28	50.4	— 3.2	79	26	32	4†	32	4.18	+ 1.31	1.47	0	12	8	4	16	n.	Mrs. B. Sloan.	
Bridgeport.....	Wise.....	754	4	.....	.....	.....	.....	.....	.....	.....	0.87	0.60	1.2	5	4	7	17	n.	Claud Strange.	
Brighton.....	Nueces.....	12	20	58.4	+ 1.5	80	28	33	14	29	2.75	+ 0.88	1.54	0	6	13	3	12	n.	G. H. Ritter.	
Brownsville.....	Cameron.....	38	49	59.0	— 3.2	85	28	37	8	33	1.00	— 0.39	0.32	0	8	10	5	13	n.	U. S. Weather Bureau.	
Brownwood.....	Brown.....	1,342	21	44.2	— 4.4	75	20	24	7†	45	0.43	— 0.69	0.20	2.0	4	9	9	10	n.	Mrs. Pearl Smith.	
Buena Vista.....	Milam.....	1	.....	.....	.....	.....	.....	.....	.....	.....	0.38	0.25	2.0	0	20	0	8	n.	W. H. Denis.	
Cameron.....	Polk.....	5	48.2	.....	.....	81	25	27	13	40	3.91	— 0.23	0	9	17	4	7	s.	J. E. Watts.	
Carmona.....	Dimmit.....	330	5	50.0	.....	73	16†	23	14	40	5.92	— 0.21	0	5	12	1	se.	M. S. Spittler.		
Carizzo Springs.....	Claytonville.....	1	55.6	.....	.....	90	26	33	8†	41	1.75	0.50	0	5	17	1	10	n.	M. E. Cook.	
Chilton.....	Fisher.....	2,100	18	43.2	— 2.1	79	18	17	2	42	0.67	+ 0.04	0.42	2.0	2	12	4	12	n.	Wm. Lanius.	
Coleman.....	Bosque.....	671	2	.....	.....	.....	.....	.....	.....	.....	1.95	0.41	0	10	5	13	n.	R. M. Jones.		
Collegeport.....	Coleman.....	1,710	19	46.6	— 1.1	82	19	22	2†	42	2.25	+ 1.22	1.50	1.5	4	8	9	11	sw.	J. E. Stevens.	
College Station.....	Matagorda.....	1	53.4	.....	.....	76	31	30	14	36	0.38	0.25	2.0	0	9	8	10	se.	H. A. Clapp.	
Colorado.....	Brazos.....	308	23	51.4	— 0.4	79	26	29	4	38	3.03	+ 1.22	1.62	0	9	10	1	17	n.	Prof. G. S. Fraps.	
Columbus.....	Mitchell.....	2,066	19	43.5	+ 4.0	79	20	18	7	50	4.47	— 0.26	1.75	0	8	11	6	11	n.	R. M. Webb.	
Corpus Christi.....	Nueces.....	206	9	.....	.....	76	26	35	8	24	2.23	+ 0.19	1.09	0	12	4	10	14	n.	Mrs. Sophie Bridge.
Corsicana.....	Navarro.....	445	24	44.5	— 5.1	74	26	27	8†	35	1.95	— 0.58	0.50	0	8	12	2	14	n.	U. S. Weather Bureau.	
Cotulla.....	La Salle.....	425	6	.....	.....	.....	.....	.....	.....	.....	1.30	0.60	0	3	12	1	se.	D. H. Winn.		
Crockett.....	Houston.....	350	9	51.1	.....	76	26	28	4†	32	3.48	— 0.21	1.46	0	7	13	3	12	n.	Holland Agricultural Co.
Cuero.....	De Witt.....	177	23	51.4	— 3.2	81	26	29	2	47	3.81	+ 1.33	1.81	0	8	12	1	15	n.	A. M. Rencher.	
Dallas.....	Dallas.....	466	24	44.0	— 3.1	75	16†	25	4†	47	1.89	— 0.87	0.54	2.1	0	10	9	15	n.	H. R. Frobose.	
Danvers.....	Wharton.....	145	17	54.2	— 0.6	78	27	28	1	36	2.70	— 0.40	1.55	0	3	13	0	15	se.	G. A. Eisenlohr.	
Del Rio.....	Val Verde.....	952	7	52.0	— 1.6	80	26	29	8	39	0.50	— 1.28	0.29	0	7	10	3	10	se.	H. P. Hermansen.	
Devine.....	Medina.....	653	3	56.8	.....	89	26	30	13	43	2.10	0.70	0.70	0	6	13	4	11	n.	U. S. Weather Bureau.
Dialville.....	Cherokee.....	375	10	49.1	— 3.0	75	26	24	14	33	4.21	+ 0.69	1.90	T.	8	13	6	9	ne.	M. A. Keller.	
Dilliey.....	Frio.....	569	3	.....	.....	.....	.....	.....	.....	.....	1.50	0.00	0.02	0	2	6	2	se.	J. M. R. McKnight.	
Dublin.....	Erath.....	1,466	17	42.4	— 3.7	78	19	19	8	44	1.08	+ 0.03	0.36	1.2	6	8	7	13	n.	John W. Miller.	
Durval.....	Travis.....	820	24	49.3	— 3.6	78	26	28	8	35	2.33	+ 1.04	0.79	0	8	12	3	13	n.	Jno. O. Shafer.	
Eagle Pass.....	Maverick.....	800	36	54.4	— 1.6	84	26	32	8†	42	0.54	— 0.27	0.17	0	8	11	6	11	n.	J. C. Edgar.	
Eastland.....	Eastland.....	1,420	6	41.4	.....	80	19	20	2	48	0.12	— 0.10	1.0	1.0	2	9*	6*	12*	n.	Charles Tarver.
Edna.....	Jackson.....	71	4	.....	.....	.....	.....	.....	.....	.....	2.75	— 0.10	1.10	0	5	11	4	11	n.	James A. Beard.
El Paso.....	El Paso.....	3,762	34	45.7	— 3.2	67	18	27	22	35	1.26	+ 0.80	0.41	T.	8	13	10	5	nw.	E. L. Faires.	
Encinal.....	La Sale.....	558	10	52.6	.....	83	26	34	2†	31	1.69	— 0.26	0.75	0	6	13	4	11	n.	U. S. Weather Bureau.
Falfurrias.....	Brooks.....	5	57.2	.....	.....	90	28	30	14†	46	1.32	— 0.51	0	7	15	7	6	ne.	W. A. Gardner.	
Flatonia.....	Fayette.....	465	5	52.5	.....	80	26	30	8	35	4.25	— 1.56	0	11	6	11	1	e.	Fred W. Laux.	
Flint.....	Smith.....	483	3	47.9	.....	78	26	2												

TABLE 1.—Climatological data for February, 1913. District No. 8—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total rainfall, unmeted.	Number of rainy days.	Number of days.	Number of partly cloudy days.				
Texas—Continued.																					
Hewitt.	McLennan.	664	18								2.25	+ 0.01	0.80	0	7	s.	I. H. Earle.				
Hico.	Hamilton.	2	2								1.52		0.61	1.8	6		John A. Eakins.				
Hillsboro.	Hill.	625	49.0			84	17	20	28	50	2.43	- 0.11	1.10	0	4		W. G. Escott.				
Hondo.	Medina.	901	14	52.0	- 1.6	83	25	30	47	44	3.15	+ 1.75	2.00	0	4	11	H. E. Haass.				
Houston.	Harris.	133	23	54.2	- 0.2	76	28	34	80	30	3.18	- 0.35	1.23	0	9	8	U. S. Weather Bureau.				
Huntsville.	Walker.	400	29	50.8	+ 0.3	77	26†	27	8	37	4.99	+ 1.70	2.01	0	4	9*	W. Y. Barr.				
Jayton.	Kent.	3	3								1.10		1.10	0	1	16	0	Wichita Valley Ry. Co.			
Jewett.	Leon.	496	9	48.8		78	26	27	4	41	3.42		1.37	0	6	18	5	Earle Adkisson.			
Junction.	Kimble.	1,645	12	49.0		80	27	22	8	44	1.20	+ 0.28	0.55	0	4		Judge John S. Durst.				
Kaufman.	Kaufman.	448	14	46.0	- 2.4	73	20†	25	8	43	2.43	- 0.67	1.00	3.0	7	13	B. J. Hubbard.				
Kerrville.	Kerr.	1,650	17	49.0	- 1.8	80	26	24	5	42	1.37	+ 0.03	0.43	0	7	13	Robert E. Horne.				
Knickerbocker.	Tom Green.	2,050	9	47.0		78	19	23	2†	44	0.49		0.19	0.5	4	10	Jos. Tweedy.				
Kopperl.	Bosque.	576	16								3.86	+ 0.80	1.50	0	6	7	T. A. Johnson.				
Lagrange.	Fayette.	276	3								2.92		1.27	0	12	14	August Hermes.				
Lamesa.	Dawson.	2,500	3								0.15		0.10	1.0	2		S. D. Austin.				
Lampasas.	Lampasas.	1,026	21	46.0	- 2.4	76	25	24	4†	49	2.14	+ 0.11	0.68	0	5	12	Mrs. K. I. Webber.				
La Parra.	Willacy.	38	10								2.70	+ 1.11	1.60	0	6		Jno. G. Kennedy.				
Laredo.	Webb.	421									1.09		0.39	0	8		Mrs. A. H. Jackson.				
Laureles Ranch.	Nueces.	20	13								0.94	- 1.35	0.39	0	3		Matt Cody.				
Liberty.	Liberty.	38	9	53.4		76	20†	29	14	35	4.42		1.92	0	7	13	n.				
Llano.	Llano.	1,040	22	46.8	- 4.1	76	26	27	8	39	0.87	- 0.32	0.22	0	8	13	E. W. Torrence.				
Llano Grande.	Hidalgo.	86	5	57.8		87	27†	33	3†	40	0.85		0.35	0	5	9	M. D. Wardlow.				
Long Lake.	Anderson.	229	8								4.71		2.00	0	6	10	Geo. W. Ellis.				
Longview.	Gregg.	336	27	46.6	- 2.3	77	26	28	14	33	4.16	+ 0.44	1.58	0.8	9	16	C. A. Propst.				
Lubbock.	Lubbock.										0.20		0.10	1.3	7	11	A. L. Paschall.				
Lufkin.	Angelina.	325	6	51.6		76	26	25	14	40	5.02		2.00	0	6	15	T. A. King.				
Luling.	Caldwell.	418	24	51.0	- 1.9	84	26	30	4†	32	4.49	+ 2.12	1.33	0	12	8	John Carter.				
McGregor.	McLennan.	713	3								2.24		0.70	0	7	12	W. H. Whitley.				
McKinney.	Collin.	612	11	44.0		75	16†	22	4	46	1.51	- 3.63	0.42	1.4	11	9	H. Killingsworth.				
Marathon.	Brewster.	4,043	3	46.2		68	3	11	8	38	1.60		1.00	3.0	4	12	Rev. A. P. Willis.				
Marble Falls.	Burnet.	771	5								1.88		0.75	0	7	12	P. E. Cochran.				
Marfa.	Presidio.		5								0.65		0.65	0	1		W. L. Jones.				
Marshall.	Harrison.	375	11	48.1		76	26	24	14	39	5.12	+ 1.06	2.00	0.5	9	7	Lee Scott.				
Matagorda.	Matagorda.	12	3								3.98		2.02	0	11	16	W. E. McNabb.				
Mexia.	Limestone.	537	9	45.2		76	26	26	4†	46	4.05		1.81	0	9	8	Miss Josephine Newman.				
Midland.	Midland.	10	44.8			75	18	18	7†	42	0.23	- 0.77	0.13	1.3	2	17	J. Harvey Clark.				
Mission.	Hidalgo.	140	3	62.8		89	28	38	8†	41	0.81		0	3	3	9	Myron J. Conway.				
Mont Belvieu.	Chambers.	65	3								4.06		1.78	0	8	16	E. H. Snyder.				
Montell.	Uvalde.		1								0.89		0.37	0	7	9	Ernest De Vilbiss.				
Mount Blanco.	Crosby.	2,750	24	37.4	- 3.6	73	17	12	1	44	0.30	- 0.52	0.25	3.0	2	11	A. R. Shearer.				
Nacogdoches.	Nacogdoches.	271	14	47.8	- 2.9	81	17	25	14	45	3.98	+ 0.11	1.40	0	5	13	A. G. Beecroft.				
New Braunfels.	Comal.	720	24	49.6	- 3.9	82	26	34	4†	35	2.36	+ 0.67	0.94	0	7	10	Geo. W. Smith.				
Palestine.	Anderson.	510	31	48.2	- 2.7	76	26	29	8	28	3.57	+ 0.18	1.53	T.	8	13	Miss Mary Hofmann.				
Panter.	Hood.	1,000	24								1.16	- 0.24	0.38	0	6		J. Giesecke.				
Pearall.	Frio.	629	3								1.09		0.44	0	8		U. S. Weather Bureau.				
Pierce.	Wharton.	102	7	51.9		77	19	29	4†	40	3.66		1.08	0	8	13	E. H. Snyder.				
Plainview.	Hale.	3,370	17	37.0	- 4.6	74	18	11	3	45	0.40	- 0.07	0.25	3.5	4	9	J. F. Sanders.				
Port Lavaca.	Calhoun.	20	12	54.1	- 1.7	73	21†	34	14	30	4.56	+ 1.94	1.60	0	7	8	J. H. Bickford.				
Post.	Garza.	2,700	3								0.59		0.30	2.5	4	10	W. T. Mann.				
Putnam.	Callahan.	1,591	2	58.0		85	26	32	15	39	1.52		0.60	2			S. M. Davis.				
Raymondville.	Cameron.		2								0.48		0	12	5		C. H. Pease.				
Ricardo.	Nueces.	57	4			84	28				1.09		0.44	0	8		P. L. Shaffer.				
Rio Grande.	Star.		36								1.00	+ 0.21	0.40	0	4	22	D. N. Garza.				
Riverside.	Walker.	169	9								5.25		1.90	0	6	12	Mrs. C. V. Higdon.				
Rockland.	Tyler.	136	9								6.60		1.90	0	7	11	Mack Dunkin.				
Rockport.	Aranas.	12	12	55.8	+ 0.6	72	28	34	8†	22	2.70	+ 0.59	1.20	0	7	10	Mrs. G. Grewe.				
Rossville.	Atascosa.	558	6	51.9		85	26	30	2†	39	1.70		0.75	0	7	12	W. F. M. Ross.				
Runge.	Karnes.	308	18								2.81	+ 0.16	1.23	0	5		Reiffert & Frobese.				
Sabinal.	Uvalde.	964	9	53.6		85	26	30	4†	37	1.39		0.55	0	6	10	H. W. Reilly.				
Sailado.	Bell.		3								2.33		0.99	0	7	15	L. M. Crockett.				
San Angelo.	Tom Green.	1,847	22	44.0	- 5.4	76	19	21	27	45	0.80	- 0.05	0.55	1.5	2	17	Sam Crowther.				
San Antonio.	Bexar.	701	250.2	2.4	85	26	30	8	35	1.91	+ 0.13	0.72	0	10	11	U. S. Weather Bureau.					
San Augustine.	San Augustine.	360	4	49.4		75	20	23	14	41	4.28		1.29	0	8	13	F. A. Wilson.				
San Juanito.	Hidalgo.		4	59.8		89	26	37	8†	38	1.14		0.28	0	9	1	J. B. McAllen.				
San Marcos.	Hays.	588	20	49.2	- 1.7	83	26	29	4†	36	2.53	+ 0.54	0.95	0	6	10	Miss L. C. Ford.				
San Saba.	San Saba.	1,712	12	46.1	- 3.0	74	26	23	4	42	1.49	- 0.17	0.33	0	12	11	Jas. Burns.				
Santa Gertrudes.	Nueces.		13								1.16	- 1.13	0.90	0	2		J. B. Wright, Jr.				
Sealy.	Austin.	201	2								3.74		1.75	0	9	6	O. H. Albert.				
Seymour.	Baylor.	1,320	7	40.1		78	18	18	2†	45	0.65		0.30	1.5	4		S. C. Lee.				
Snyder.	Scurry.	2	33.0			78	18	12	7	53	0.58		0.27	T.	4	9	J. Allen W. Beaver.				
Somerville.	Burleson.	251	4	52.8		81	26	28	4	35	4.33		1.68	0	5	17	Ed. Herbst.				
Sonora.	Sutton.	2,200	9								2.20		0.80	0	4		C. R. Myers.				
Spur.	Dickens.	2,300	2	37.0		78	18	14	2	51	0.41		0.21	1.4	5	12	J. D. Reagan.				
Stamford.	Jones.	2	38.7			70	18	16	7	34	0.91		0.27	2.0	5	13	W. L. Pratt.				
Sugarland.	Fort Bend.	79	12	53.5	- 0.1	74	28	33	8†	33	3.22	+ 0.28	0.90	0	9	11	Paul C. Rudat.				
Sutherland Springs.	Wilson.	424	3								2.20		0.80	0	4		W. W. Craft.				
Taylor.	Williamson.	583	12	47.8	- 3.5	79	26	28	24	34	3.82	+ 1.24	1.74	T.	9	7	U. S. Weather Bureau.				
Temple.	Bell.	630	24	46.4	- 1.8	77	26	27</td													

TABLE 2.—*Daily precipitation for February, 1913.* District No. 8, Texas and Rio Grande Valley.

TABLE 2.—*Daily precipitation for February, 1913. District No. 8—Continued.*

TABLE 2.—*Daily precipitation for February, 1913. District No. 8—Continued.*

* Precipitation included in that of the next measurement.

[†] Separate dates of falls not recorded.
[‡] Precipitation for the 24 hr period.

Precipitation for the 24 hours ending on the morning when it is measured.
T Precipitation is less than 0.01 inch rain or melted snow.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—Maximum and minimum temperatures at selected stations for February, 1913. District No. 8, Texas and Rio Grande Valley.

Date.	Colorado.				New Mexico.										Texas.													
	Garnett.		San Luis.		Agricultural College.		Carlsbad.		Fort Stanton.		Mountain-air.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Springs.		Brownsville.		Corpus Christi.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1....	35	7	.....	.....	63	21	59	29	54	16	50	14	46	25	42	21	36	24	43	15	46	24	50	27	73	45	62	50
2....	28	11	.....	.....	65	24	46	25	54	11	45	14	43	20	39	22	30	20	33	.....	25	19	30	17	79	59	65	55
3....	28	-8	.....	.....	56	22	50	20	50	12	38	16	42	11	50	12	29	7	43	0	43	22	48	20	72	51	60	45
4....	37	-8	.....	.....	63	23	70	28	55	21	50	20	48	24	64	21	40	15	55	26	70	30	70	27	69	42	58	43
5....	39	-5	.....	.....	60	25	60	26	55	18	52	22	50	25	57	20	43	19	58	18	39	27	56	29	73	50	63	54
6....	39	0	.....	.....	63	33	70	34	57	32	53	20	52	30	67	28	44	24	61	33	32	25	46	26	75	62	59	54
7....	34	2	.....	.....	40	37	68	22	46	11	32	8	44	20	31	12	34	13	34	15	25	20	37	18	71	41	55	38
8....	32	9	.....	.....	37	30	27	21	45	12	40	22	40	16	27	10	42	11	40	9	32	22	37	19	42	37	42	35
9....	36	7	.....	.....	55	29	53	25	50	26	40	26	46	23	40	25	40	25	52	26	46	30	58	27	46	39	46	41
10....	42	1	.....	.....	57	39	55	26	48	27	44	28	42	28	55	31	41	21	59	30	64	40	70	37	67	45	56	46
11....	40	-11	.....	.....	53	31	51	35	51	23	35	25	38	20	38	33	34	23	44	22	54	31	58	32	75	57	66	50
12....	39	-2	.....	.....	52	32	40	32	50	18	38	28	42	22	39	32	38	19	35	21	41	23	44	27	67	41	50	40
13....	43	2	.....	.....	55	29	52	27	41	25	39	30	41	20	52	29	39	15	51	19	51	29	46	23	49	39	50	40
14....	42	2	.....	.....	57	22	66	21	50	14	40	28	50	20	65	22	45	18	62	20	60	29	54	37	61	42	56	38
15....	46	7	.....	.....	62	29	64	34	60	25	42	28	50	30	61	32	45	20	58	24	66	39	63	33	70	39	64	40
16....	48	5	.....	.....	64	27	75	25	60	17	53	18	51	26	65	25	48	24	66	21	70	32	69	37	72	39	62	44
17....	49	8	.....	.....	67	25	77	27	65	22	56	24	55	28	71	26	50	28	68	34	72	39	74	40	52	65	50	
18....	49	16	.....	.....	68	33	69	39	61	33	58	28	52	33	72	36	50	31	66	45	74	45	77	45	55	64	53	
19....	40	13	.....	.....	62	29	71	36	55	35	50	24	46	28	66	39	41	23	59	27	75	46	77	45	53	65	58	
20....	30	9	.....	.....	52	35	72	40	45	29	42	18	38	23	62	35	36	17	54	30	55	37	66	37	62	70	61	
21....	28	-5	.....	.....	49	19	65	29	35	18	43	13	32	14	50	23	38	13	41	18	51	34	56	34	66	72	61	
22....	30	0	.....	.....	60	17	67	30	38	22	48	21	42	22	62	19	36	18	56	19	49	28	56	38	53	62	55	
23....	34	-1	.....	.....	55	22	69	38	48	18	42	8	44	20	59	31	33	5	48	20	45	27	54	34	60	71	51	
24....	40	10	.....	.....	65	23	62	24	44	21	54	28	52	20	62	26	44	19	61	22	54	24	60	23	54	61	44	
25....	47	10	.....	.....	61	35	76	30	54	28	50	34	45	30	70	31	44	32	60	34	65	46	67	45	75	58	68	
26....	46	15	.....	.....	51	37	67	43	50	26	46	29	42	28	61	39	38	27	57	37	74	42	71	48	80	68	76	
27....	38	22	.....	.....	50	36	60	41	51	20	38	27	35	24	59	34	32	22	51	31	67	30	65	23	76	59	74	60
28....	33	7	.....	.....	49	32	59	48	38	21	35	13	33	16	52	26	29	14	43	19	36	24	55	30	85	57	72	58
Mns..	38.3	4.8	.....	.....	56.8	28.8	61.4	30.5	50.4	21.5	44.8	21.9	44.4	23.2	54.9	26.4	38.9	19.5	52.1	23.5	52.9	31.0	57.6	30.9	68.8	50.5	61.9	49.6

Date.	Texas.																											
	Del Rio.		El Paso.		Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		Seymour.		Taylor.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1....	66	37	62	34	80	55	63	31	46	29	57	54	66	51	55	41	60	49	55	36	50	13	56	40	47	23	52	35
2....	53	43	63	33	80	50	55	24	34	30	59	52	56	45	56	48	55	45	34	25	12	49	42	25	18	44	36	
3....	59	41	56	30	79	50	63	31	42	26	56	48	53	40	54	39	51	32	44	34	46	11	54	40	42	18	46	
4....	62	36	63	31	78	34	77	31	55	26	53	43	61	32	59	36	60	29	58	30	55	23	58	29	62	39		
5....	58	39	60	33	76	61	76	28	45	31	56	50	65	38	63	41	67	33	57	35	43	20	66	41	29	39		
6....	58	51	63	43	76	48	77	33	36	28	56	51	53	45	56	48	57	40	54	40	30	20	54	44	26	35		
7....	51	30	51	28	75	35	60	20	29	25	54	39	45	38	53	35	57	33	45	31	25	16	44	32	27	29		
8....	38	29	38	27	74	34	35	20	42	25	48	36	43	33	47	34	39	30	35	29	29	16	41	31	37	23		
9....	45	35	48	35	73	42	58	32	42	33	59	44	50	39	56	43	67	33	44	34	46	23	47	34	54	33		
10....	59	42	57	41	74	45	60	37	50	42	64	59	62	45	70	55	60	32	57	39	50	30	56	46	37	54		
11....	60	41	52	37	71	58	58	34	51	33	61	53	54	40	63	52	62	51	56	39	51	28	62	43	57	34		
12....	41	37	44	33	70	36	40	30	41	28	53	42	42	38	52	41	62	32	45	32	48	16	43	35	44	22		
13....	52	35	52	34	70	43	54	28	51	27	50	40	51	40	53	39	62	34	47	32	59	24	54	38	55	26		
14....	63	31	56	30	68	35	64	32	62	32	52	42	57	33	57</td													